



Mi Universidad

ACTIVIDAD 2

NOMBRE DEL ALUMNO: Luis Enrique Díaz Rodríguez

TEMA: Actividad de aprendizaje 2

PARCIAL: 1°

MATERIA: Estadística

NOMBRE DEL PROFESOR: Magner Joel Herrera Ordoñez

LICENCIATURA: Psicología

* Medidas de Tendencia Central.

- Ejercicio 1

15, 15, 15, 16, 17, 18, 19, 19, 20, 21, 23, 23, 24, 25, 25, 25, 28, 28, 29, 31, 32, 32, 32, 33, 36, 41, 42, 43, 43

$$\bar{x} = \frac{\sum x}{n} = \frac{803}{30} = 26.76$$

$$\text{med} = \frac{n+1}{2} = \frac{30+1}{2} = \frac{31}{2} = 15.5 = \frac{25+25}{2} = 25$$

$$\text{moda} = 15, 25, 32$$

- Ejercicio 2.

Datos: 2, 4, 6, 8

$$\bar{x} = \frac{20}{4} = 5$$

$$s^2 = \frac{(2-5)^2 + (4-5)^2 + (6-5)^2 + (8-5)^2}{4-1}$$

$$s^2 = \frac{9+1+1+9}{3} = \frac{20}{3} = 6.6$$

$$s = \sqrt{s^2} = \sqrt{6.6} = 2.56$$

$$C.V. = \frac{s}{\bar{x}} (100) = \frac{2.56}{5} (100) = 51.2$$

Ejercicio 3.

Cantidad de Cuadernos vendidos	Numero de días (fi)	Punto medio (pm)	$f \times pm$	$(pm - \bar{x})^2$	$f \times (pm - \bar{x})^2$
5-10	3	7.5	22.5	100	300
10-15	7	12.5	87.5	25	175
15-20	10	17.5	175	0	0
20-25	8	22.5	180	25	200
25-30	1	27.5	27.5	100	100
30-35	1	32.5	32.5	225	225
Total	30		525	475	

$$pm = \frac{Li + Ls}{2}$$

$$\bar{x} = \frac{525}{30} = 17.5$$

$$s^2 = \frac{\sum (x - \bar{x})^2}{n-1}$$

$$s^2 = \frac{475}{29} = 16.37$$

$$s = \sqrt{16.37} = 4.04$$

$$C.v. = \frac{4.04}{17.5} (100) = 23.11$$

Ejercicio 4.

25, 28, 30, 30, 35, 35, 36, 37, 37, 38, 40, 40, 40, 40, 40, 40, 41, 43, 48, 50

Determina:

$$Q_2 =$$

$$D_7 =$$

$$D_9 =$$

$$P_{15} =$$

$$Q_k = \frac{kn}{4}$$

$$D_k = \frac{kn}{10}$$

$$P_k = \frac{kn}{100}$$

$$Q_2 = \frac{2(20)}{4} = \frac{40}{4} = 10 = \textcircled{38}$$

$$D_7 = \frac{7(20)}{10} = \frac{140}{10} = 14 = \textcircled{40}$$

$$D_9 = \frac{9(20)}{10} = \frac{180}{10} = 18 = \textcircled{43}$$

$$P_{15} = \frac{15(20)}{100} = \frac{300}{100} = 3 = \textcircled{30}$$